

Growing Pressures for Corporate Environmental Responsibility

Emerging changes in the structure of the increasingly globalized economy are leading to enhanced environmental awareness and a shift in expectations regarding both public and private environmental management. Mostly generated by powerful forces outside Asia and the Pacific, these are now strongly affecting business leaders, government officials, and civil society. Demand for improved environmental performance will, however, be felt most acutely by the business community. Those business leaders who prepare their companies now to accommodate these social and market forces will prosper; they will profit from being environmentally proactive and will capture increased market share. Those who ignore these challenges will suffer and may even see their survival threatened. The purpose of this chapter is to describe the external pressures that will challenge the private sector to change the way it does business with regard to environmental management in Asia and the Pacific. Before examining these pressures, however, it is necessary to provide some historical perspective.

THE EVOLUTION OF SUSTAINABLE DEVELOPMENT

Protecting the environment is not a new phenomenon, at least not in the developed world. Most OECD members began to take

formal action to improve environmental quality beginning in the 1960s. During the post World War II era, there was a burst of economic activity built on huge demand for a wide range of consumer goods—automobiles, housing, appliances—all of which required more energy and raw materials. A rapid expansion of households accompanied the postwar baby boom, and the war-ravaged economies of Europe and Japan were rebuilt.²⁷ This increased economic activity was accompanied by an unprecedented amount of industrial pollution and unwanted waste. Pea soup smog from coal combustion and diesel engines killed 12,000 people in London in 1952.²⁸ Smog emanating from automobile emissions blanketed Los Angeles and other cities of North America. Lakes and rivers were dying as untreated wastes poured into them. Oil spills at sea resulted in beaches and wildlife coated with black tar. People all over the globe—especially those in the Pacific—were concerned over nuclear fallout from atomic bomb testing in the atmosphere. Pesticides and other poisons were showing up in areas far removed from where they had been applied. The emerging connection between pollution and public health was the primary driver of this phase of the environmental attention cycle, but increased leisure time and the need to preserve open spaces were also significant.²⁹

As the per capita income of citizens in Europe, Japan, and North America rose and the environmental damage became increasingly visible and publicized, the affluent middle class began to demand improvements in environmental quality. Initially, most business leaders appeared hesitant to respond to these demands. Political

leaders did, however, react to grassroots pressure and began to enact a new body of environmental laws and regulations. This was the genesis of the “command-and-control” environmental model that dominated the first decades of the modern environmental movement. It was characterized by government regulations that dictated acceptable pollution control technologies for all types of production. These regulations mostly imposed retrofits of existing plants through “end-of-pipe” or “top-of-stack” solutions.

From a corporate viewpoint, this retrofitting was all cost and no benefit. The more stringent the regulation, the higher was the incremental cost of compliance. In the worst cases, factories were closed without regard to employment or economic considerations. Often this process led to bitter political and legal confrontations between business and environmental advocates with governments forced to make difficult choices.

By the mid-1980s, policies and environmental programs in Europe and North America began to enter a second phase. Greater attention was given to invisible or hidden pollutants and to new sources of future pollution. The concept of pollution prevention entered the lexicon and debate over environmental policy. Environmental legislation such as the Clean Air Act in the US moved away from strict technology-driven regulations toward more flexible approaches allowing corporate innovation to achieve agreed environmental quality standards. Innovative entrepreneurs began to change their core production processes and to integrate environmental considerations into the design of new facilities. Cleaner production methods reduced pollution levels per unit of output often at a cost far lower than controls tacked on at the end of the process. This gave some firms a competitive advantage over those continuing to use dirty technology and contributed to a “greener image” for such innovators. In Asia and the Pacific, growth was beginning to pick up as the Southeast Asian “tigers” expanded their export-oriented manufacturing capacity, the PRC opened its economy to the outside

world, and India started to move away from its self-reliance model of development. In most developing countries, however, environmental degradation was still viewed either as an inevitable consequence of rapid economic development or as a phase to be endured that developed countries had also passed through on their way to prosperity.

In 1987, the World Commission on Environment and Development issued its landmark report that introduced the concept of sustainable development and recognized a need for business to make radical changes in the way it operated to meet the demands of growing populations for more goods and services. This blue-ribbon panel report signaled the importance of poverty alleviation as integral to preventing unsustainable use of the world’s resources and natural ecosystems. The United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992 acknowledged this new direction, but it did not fully embrace the concept of sustainable development. In the decade between UNCED to the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg, the policy, academic, and business communities began to flesh out the concept of sustainable development as resting on three “pillars” or measures of performance: (i) economic, (ii) environmental, and (iii) social. For most developing countries in Asia and the Pacific, economic growth remained paramount, and lip service paid to environmental and social goals was not backed with adequate resources.

By the time of the WSSD meeting, environmental policies and programs in the OECD countries had begun to enter a third phase. This partly reflected a co-evolution of environmental policies and business practices as manufacturers turned to smaller, lighter, safer, and more environmentally benign products. The emerging new paradigm was to create more value with lower risk and lower impact on nature with entrepreneurs beginning to focus on delivering services rather than products. At the same time, a growing share of the “West’s” production (and increasingly its service sector)

was being outsourced to newly industrializing countries—especially in Asia and the Pacific—as a part of the globalization phenomenon. Companies began to take into consideration the entire “life cycle” impacts of their products from “cradle to grave.” Further, there was greater recognition that the poor were often the main victims of environmental degradation as poverty itself also could be an enemy of the environment. There was a new realization by most that society could not succeed in achieving its environmental or societal goals unless the business community was involved as an active partner with governments and the various elements of civil society.

This evolution of sustainable development thinking was mirrored within the business codes and practices of progressive companies. A Norwegian company describes the evolution of its own environmental and sustainability improvements in four phases: (i) the repair phase, and “cleaning up its sins of the past;” (ii) the preventive phase—developing and installing cleaner technology; (iii) the business development phase—minimizing environmental impacts of products throughout their entire life cycle; and (iv) addressing globalization issues that affected their business.³⁰

Outside of Japan, the Republic of Korea, and Singapore, environmental consciousness developed much later in Asia and the Pacific than in Europe and North America. For example, the PRC’s leaders attributed the environmental problems of the developed world in the 1960s to the evils of capitalism. However, central planning and dispersion of industry for security reasons in the PRC also proved disastrous for the environment as unrealistic production targets dictated from Beijing had to be achieved by local communes regardless of the environmental costs. Deserts expanded due to unrealistic yield expectations from agriculture and from settling of nomadic livestock herders into permanent villages. Self-sufficiency in the communes meant that inefficient production systems such as backyard iron and steel smelting and a myriad of highly polluting township and village enterprises destroyed surrounding forests

and turned streams into black, foaming, lifeless bodies of water. As the state owned the means of production and cared little for noneconomic measures of living standards, there was little incentive for the government to impose costly environmental controls. It was not until 1992 that the ruling Communist Party in the PRC formally replaced central planning with a socialist market economy. In 1997, the 15th National Congress upgraded the private sector from a necessary supplement to the public sector to an important component of that economy. By 1999, only 28% of gross industrial output was from state-owned enterprises.

The earliest environmental body in the PRC was the Leading Group for Reutilization of Three Wastes (wastewater, gas, and solid wastes) established in 1971 under the state planning commission. The first national environmental conference was held in 1973 and resulted in a regulation to protect and improve the environment. A trial version of an environment protection law was adopted in 1979 and was replaced by a new version in 1989 that stressed effluent fees and emission permits. The National Environment Protection Agency was established in 1984 and elevated to a ministerial-level organization and renamed State Environment Protection Agency (SEPA) in 1998. Each province now has a Provincial Environment Protection Board. By the late 1980s, the disastrous state of the PRC’s environment was increasingly obvious. In 1993, the National People’s Congress established the Standing Committee on Environment and Resource Conservation to review the drafts of the numerous environmental laws that have been promulgated over the past decade and to recommend improvements. Following developed country examples, the PRC initially opted for command-and-control regulations and end-of-pipe solutions. Gradually, highly polluting, inefficient enterprises have been shut down, but the growth of the economy has been so rapid that total pollutant loads have continued to grow. Despite an impressive array of environmental laws and regulations, enforcement remains weak.³¹

Box 1: Corporate Environmental Performance and Competitiveness in Asia

A report published by the Corporate Environmental Governance Program of the University of Hong Kong offers some interesting observations suggesting that countries across the region should be paying more attention to how their companies perform environmentally. A survey of 450 companies from 15 countries posed 25 questions about the environment, corporate social responsibility, labor standards and human rights, sustainable development, and perceptions about the future. Responses were used to generate a Business Sustainable Development Preparedness Index for each country and then to consider whether there are links between this index and competitiveness at the country level by reference to the World Economic Forum Business Competitiveness Ranking.

While a direct causal relationship was not established, the results suggest that countries with companies most prepared for sustainable development tend also to be the most internationally competitive. The report grouped countries into two categories. Group one contains those that achieve both a high Business Sustainable Development Preparedness Index rating and at the same time are ranked relatively highly in Business Competitiveness. These countries seem to be leading the way in terms of business and sustainable development. Group two includes those countries that scored less well in the Business Sustainable Development Preparedness Index and typically have lower rankings in Business Competitiveness.

From Asia and the Pacific, the former group includes Singapore and Japan, while the latter group includes the Republic of Korea, Malaysia, Thailand, and Hong Kong, China. From these results, then, it appears that a credible business case can be made for attention to sustainable development issues due to links with overall competitiveness.

Despite this relationship, the results of the report suggest that companies from the region still need convincing that sustainable development concerns are in their best business interests. While companies from Asia and the Pacific surveyed perceived that environmental deterioration will be a bigger issue over the next five years than their North American and European counterparts, the region's companies were relatively less convinced that sound environmental and social responsibility practices will be a source of competitive advantage in the future.

Source: Welford, Richard. 2004. *The Business Sustainable Development Preparedness Index and Country Competitiveness: An International Comparison*. Hong Kong. The Centre of Urban Planning and Environmental Management, The University of Hong Kong.

Despite limited, recent improvements, it is clear from regular state-of-the-environment reports that the rapidly growing economies in Asia and the Pacific, especially the PRC and India, are still lagging behind the rest of the world and need to act on environmental issues now. This report argues that the longer the region's societies defer action, the more expensive it will become to clean up the mess. An ounce of environmental prevention now will reduce the ultimate bill for cleaning up. In the interim, millions of individuals will suffer from unhealthy air, dirty water, toxic dumps in their neighborhoods, and seriously degraded ecosystems that may be irrevocably damaged or may require decades to recover from present abuse. There is a clear economic and moral case for acting now. But that may not be sufficient to get the attention of business! In fact, a recent study showed that many companies from

the region still need convincing that sustainable development concerns are in their best business interests (see Box 1). Perhaps the strategic threat to business from looming pressures generated from outside the region will call them to action.

THE EXTERNAL PRESSURES

There are five primary driving forces behind the sweeping economic changes blowing over Asia and the Pacific:

- entry into the global economy;
- the emergence of an affluent, consumer-oriented middle class;
- the information revolution;
- urbanization; and
- industrialization.

Entry into the global economy, on balance, appears to be a force encouraging a “race to the top” rather than the feared “race to the bottom” in terms of production practices, including their environmental dimensions. When major retailers in the West place an order for a million small electrical appliances, they impose a host of labor, environmental, and other requirements on the supplier. The wiring must be safe and meet well-established standards. The buyer insists on product quality control. The number of defective products reaching consumers must be minimized or the profitability of the entire venture can be destroyed. The normal requirement is at least compliance with ISO-9000 total quality control or similar standards. This forces companies in Asia and the Pacific to carefully measure and monitor their performances, and “what gets measured gets managed”! As soon as plant engineers, product designers, and managers begin to measure production processes more carefully, they begin to identify waste and eliminate pollution. During bidding, purchasers often inspect the production facilities of competing firms. Firms that pose higher risks of fire or other accidents are downgraded. The purchaser wants to minimize all potential disruption to the timely delivery of goods during key sale periods. Just-in-time delivery and dependable supply is crucial to winning and maintaining contracts in the 21st century. Thus, entering into global markets can be a force for improved health, safety, and environmental performance.

The *emergence of an affluent middle class* in the region may ultimately yield a net gain for the environment—balancing increasing resource use against demand for environmental quality improvement. Upwardly mobile consumers demand more goods and services, and this obviously places increased pressure on natural resources and waste sinks. The rise in the world price of oil, largely fueled by increased demand in the PRC, is one example of how increasing consumption impacts natural resources and prices. These more affluent consumers may also become a force

for improved environmental performance, subject to some lags in response. Affluent consumers have market power, and they will demand improved quality of life as well as increased quantity of goods. Given appropriate information, affluent consumers will not buy shoddy goods or those associated with unacceptable levels of pollution, poor labor standards, and degradation of the natural environment. Their demand for more goods and services is inevitable so the hope must be that demand for improved environmental quality “kicks in” fast enough to send unambiguous signals to both business and government leaders.

The *information revolution* enables a more open and transparent society. In a world of satellite TV, Internet access, and ubiquitous cell phones (many with cameras), it is increasingly hard for any business or government to hide from public scrutiny. Make a serious mistake and the local community knows about the problem instantaneously. Courtesy of 24-hour news stations, the entire world will know about it tomorrow. Firms dumping toxic waste into rivers and streams can be exposed through photographic images of their asocial behavior on the Internet; consumer boycotts damaging corporate reputation and profitability surely will follow. Companies are learning quickly that in the always-on news world, reputations can be damaged easily and/or permanently. Thus, the information revolution—especially when combined with the emergence of an affluent, more assertive middle class—is a potentially potent force for improved environmental performance. On the negative side, advertising pays for much of the always-on media coverage and often cleverly exploits the seductive power of conspicuous consumption which (if unchecked) can tip the balance of choice away from the better environmental alternative.

The global trend toward *urbanization* is relentless and it is strongest in Asia and the Pacific. Currently, about 1.56 billion people live in the region's urban areas, and

this is projected to grow to 2.21 billion by 2020.³² Why do people move to crowded urban centers? One reason is the expectation of an improved quality of life. Urban areas are hives of economic activity, opportunity, and creativity. There is a higher probability that essential services like water, sanitation, and electricity will be available in these areas. In many rural areas, comparable services are not available at any price. Cities also generate huge pollution loads from municipal waste, transport, and industry. Urbanization may become a force for improved environmental performance if city dwellers demand environmental quality as part of their collective aspirations and are willing to pay for it through the tax base. The phenomenon also places enormous responsibilities on local and national governments to ensure that the demands for common services are reliably provided at a reasonable cost. Crowded populations in slums without these basic services are, of course, environmental nightmares. Far too many people in Asia and the Pacific are forced to live in such unsanitary conditions with chronic and epidemic diseases often the result. If the pace of urbanization exceeds the capacity to upgrade and install new urban environmental infrastructure, the urban environment will continue to degrade.

Industrialization is the fifth driving force that is changing the face of Asia and the Pacific. The region's share of global output, for example, was roughly 10% in 1950, 30% in 1995, and is expected to reach 55–60% by 2025.³³ Population is shifting from rural areas to urban areas and is creating a new workforce to power this process. The collective impacts of their industrialization probably will not benefit the environment in the short term. Increased production is placing great pressure on natural resources, and where it is based on older polluting technology, the impacts are definitely negative. However, rapid expansion of the industrial base of the region requires massive new capital formation and provides unique opportunities to turn over the old capital stock quickly and phase out polluting

technology. If the existing capital stock is largely replaced with new, cleaner technology, then pollution levels per unit of output can actually be reduced as industrial production levels increase. Consultations with business and academic leaders from the region indicated that MNCs are transferring world-class technologies to Asia, often at a much faster rate than they can turn over the old capital stock in Europe or North America. It is crucial that per-unit pollution intensity declines quickly in the region, because the collective economic product is growing so rapidly.

The combined environmental outcome of these five driving forces in Asia and the Pacific remains uncertain. It will be determined in each country by a complex balancing of (i) supply chain pressures versus the temptation to take advantage of still lax environmental controls; (ii) a demand for quality of life by an emerging middle class versus the desire for conspicuous consumption; (iii) information on environmental degradation associated with consumption versus information inducing increased consumption (iv) the pace of investment in urban environmental infrastructure versus the pace of urbanization; and (v) the pace of capital stock replacement with clean technology versus increased industrial output.

These driving forces have found their expression in recent times in a range of specific "demands" emanating either from consumers or from global policy and standard-setting organizations. The remainder of this chapter presents the most significant of these new expectations.

Global Compact

The Secretary-General of the UN has called for "Globalization with a Human Face." At the 1999 World Economic Forum in Davos, Switzerland, he proposed the creation of a "global compact"—a voluntary initiative intended to bring private companies together with UN agencies, labor, and civil society to contribute to poverty alleviation. By September

2005, more than 2,400 organizations and nearly 50 country networks around the world had signed on. To join the initiative, companies are required to follow 10 principles in the areas of human rights, labor, anti-corruption, and the environment.

The Global Compact generally draws its environmental principles from the 1992 Rio Declaration on Environment and Development which contained 27 principles defining the rights of people to development and their responsibilities to protect the common environment. This explains the wider context of the three environmental principles of the compact: (i) to support a precautionary approach to environmental challenges, (ii) to undertake initiatives to promote greater environmental responsibility, and (iii) to encourage the development and diffusion of environmentally friendly technologies. According to Agenda 21, the broad policy statement that emerged from the UNCED conference, greater environmental responsibility means, "...responsible and ethical management of products and processes from the point of view of health, safety, and environmental aspects. Toward this end, business and industry should increase self-regulation, guided by appropriate codes, charters, and initiatives integrated into all elements of business planning and decision-making, and fostering openness and dialogue with employees and the public." In addition to applying this precautionary approach, corporations are encouraged to (i) adopt the same operating standards regardless of their global location, (ii) ensure these standards are followed by all suppliers through supply-chain management, (iii) facilitate technology transfer from the developed to the developing world, (iv) build environmental awareness in company locations, (v) communicate with local stakeholders, and (vi) share benefits equitably. Compliance with Global Compact principles means that companies are meeting these Agenda 21 objectives.

The precautionary principle has been subject to considerable controversy. Some view

it as an excuse to delay all economic expansion by those who prefer the status quo to a future that will pose greater risks to society and the biosphere. Its proponents argue that it is unacceptable to give industry or anyone else a blank check and impose unacceptable risks on society. Where precaution is a fundamental strategic concern, corporations can (i) build in safety margins, (ii) ban or restrict activities with uncertain impacts, (iii) adopt best available technology, (iv) implement cleaner production and industrial ecology approaches, and/or (v) communicate their concerns to stakeholders. Common sense argues for environmental impact assessments (EIAs) or strategic environmental assessments for major new initiatives and for the introduction of radical new technology. It would, however, be equally foolish to allow the precautionary principle to become a bureaucratic barrier to the introduction of new cleaner technology or other environmental management innovations.

Moving toward environmentally sound practices and technologies may involve corporations in (i) changing their processes or manufacturing techniques, (ii) changing to environmentally benign and/or less toxic input materials, (iii) making changes to their products, or (iv) reusing materials on site by recovering useful materials from waste. Life cycle analysis/assessment (LCA) and other well-established techniques may help to identify appropriate technologies.

Half of the companies participating in the Global Compact say they have changed their policies as a result. For nearly two thirds of companies from developing countries, the compact is their first corporate citizenship initiative, often entered into to gain supplier relationships with larger global firms. More than 100 partnership programs have been undertaken thus far in support of the Compact's principles. The UN is now examining how to market compliance with the Global Compact as an identifiable seal of good governance and to ensure that there are no free riders.

Some NGOs have expressed discomfort that the UN and its Global Compact is in

danger of “getting too cozy” with the business community. This reflects latent distrust between the environmental and business communities that is partly a legacy of confrontational battles during the first and second phase of the modern environmental movement. The current phase involves greater use of partnerships and the aligning of environmental and economic goals.

Sustainable Production and Consumption

One of the most contentious and poorly understood areas in the debate over sustainable development relates to the concept of sustainable consumption. The business community remains solidly wedded to providing maximum consumer choice through open markets. Some environmental NGOs prefer government intervention through punitive taxes and charges to curtail excessive consumption patterns that damage the environment. A growing number of customers state outright that they only want products that help or are at least neutral toward the environment, and many say that they want to do more with less and want life to be simpler and less wasteful. Such consumer motivations provide a strong rationale for corporate eco-efficiency and the marketing of “green” products.

It is axiomatic that human populations cannot expand indefinitely with everyone expecting to live at the current levels of consumption and production in developed countries. Human activity already takes up 83% of the Earth's land surface for settlement, farming, mining, or fishing.³⁴ We also use 98% of the land suitable for farming our major staple crops of rice, wheat, and corn. In addition, we have appropriated 40% of the net primary productivity, 35% of the productivity of the oceanic shelf, and 60% of freshwater runoff.³⁵ Highly subsidized farmers in Europe and North America, however, may question any such physical resource constraints, as they may even be paid not to farm. There is uniform agreement, however, that doubling human

population density is not possible without greatly increased efficiency in resource use, radically improved production technology, reduced consumption, reduced space for all other living things, or some combination of these factors.

In 2001, the World Business Council for Sustainable Development (WBCSD) issued a report entitled *Sustainability Through the Market—Seven Keys to Success*, which was to provide a business perspective on this contentious issue.³⁶ The seven recommendations were:

- (i) innovate;
- (ii) practice eco-efficiency (or cleaner production);
- (iii) move from stakeholder dialogues to partnerships for progress;
- (iv) provide and inform consumer choice;
- (v) improve market framework conditions;
- (vi) establish the worth of Earth; and
- (vii) make the market work for everyone.

Governments, environmental NGOs, and businesses can all agree with these keys. The main question is how to move this agenda forward. Keys 5 through 7 will require more cooperation from all parties, with Key 5 requiring a stable, corruption-free, socioeconomic framework that facilitates positive change. Governments, as the representatives of all sectors of society, are responsible for setting this framework. Neither business nor the NGO community can substitute for this legitimate government responsibility. Key 6 requires all parties to recognize the value provided by nonmarketed environmental goods and services—clean air, fresh water, fertile soils, and aquatic ecosystems. If society allows continued degradation of “free” ecosystem services, then everyone loses. Historically, most efforts to privatize public goods and make an individual or firm responsible for managing common resources have been met with controversy. Governments need to find clever ways of using market-based incentives as well as selective regulations to preserve those natural systems that remain outside the market. Key 7 is the

ultimate challenge. How can markets be made to work for the poor? Without creativity and innovation, the Millennium Development Goals (MDGs) for poverty alleviation may not be met. Here society comes face to face with an important challenge—how to unleash human ingenuity without creating new problems greater than those that we sought to solve? The tension between precaution and innovation cannot be wished away.

In 1997, the Asia and Pacific Conference on Consumers in the Global Age called for amendments to the UN Guidelines for Consumer Protection and creation of a model law on consumer protection for the region. The UN guidelines, originally drafted in 1985, were subsequently revised in 1999 based on a discussion paper largely prepared by Consumers International entitled, *UN Consumer Protection and Sustainable Consumption: New Guidelines for the Global Consumer*. In it, sustainable consumption is defined as how the goods and services required to meet basic needs and to improve the quality of life can be selected in ways that reduce the burden on the Earth's carrying capacity. Sustainable production focuses on improving environmental performance in key economic sectors. The two concepts are inextricably linked.

The guidelines baldly state that, “unsustainable patterns of production and consumption, particularly in industrialized countries, are the major cause of the continued deterioration of the global environment.” While the world does not appear to be running out of resources, the overexploitation of global fisheries, mass extinction of species, rising emissions of GHGs, and global climate change are indicative of alarming trends. Nevertheless, some still believe that poverty is a greater threat to the natural environment than affluence is, so from that perspective, the “temporary” deterioration of environmental quality in developing countries until the poor escape from poverty may be justifiable.

Specific roles envisaged for business in the UN guidelines include (i) promoting sustainable consumption through the design,

production, and distribution of goods and services; (ii) partnerships with governments and civil society to promote sustainable consumption through a mix of policies that could include regulations, economic and social instruments, sector policies, providing information, removal of subsidies, and promotion of best practices; and (iii) partnerships with governments and other organizations to encourage the transformation of unsustainable consumption patterns by developing new, environmentally sound goods and services.

By 2002, the lack of specificity in the UN guidelines as well as insufficient progress in meeting the goals of sustainable production and consumption resulted in one of the key initiatives of the WSSD's Johannesburg Plan of Implementation (JPOI)—the development of a 10-year framework of programs for sustainable production and consumption. Its purpose was, “...to accelerate the shift toward sustainable consumption and production to promote social and economic development within the carrying capacity of ecosystems by addressing and, where appropriate, de-linking economic growth and environmental degradation through improving efficiency and sustainability in the use of resources and production processes and reducing resource degradation, pollution, and waste.”

Regional meetings have already been held to further this process, including two gatherings in Asia and the Pacific.³⁷ Preliminary ideas on a regional strategy have been developed with indications of needs and priorities. One proposal is to establish a “help center” with the support of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and UNEP's regional office. At the first meeting in Yogyakarta, there was a call for, “International organizations such as UNEP, United Nations Industrial Development Organisation (UNIDO), the Asian Productivity Organization, ADB, and national productivity organizations to strengthen existing institutions such as National Cleaner Production Centers to

enhance their service packages to promote sustainable consumption and production patterns, for example, by including product-related issues, *inter alia*, life cycle analysis and product and service design and marketing.” Subsequently, an international expert meeting on the 10-year framework of programs for sustainable consumption and production was held in Marrakech, Morocco. One hundred fifteen experts from 59 countries and nine international organizations concluded at that time that the challenge continued to be finding ways to move from “the more generic to the specific and [to] focus on implementation.”

The regional expert meeting in Yogyakarta called on industry to (i) carry out self-assessments; (ii) provide credible self-declarations on their products and services; (iii) develop and follow codes of conducts; (iv) assist SMEs in their supply chain to develop sustainable production and consumption practices; (v) adopt sustainable procurement practices; and (vi) increase research and development on consumer behavior and sustainable production processes, products, and services. UNEP was encouraged to explore the possibility of an international declaration on sustainable production and consumption. So far, the development of the 10-year framework has not extended beyond a series of international meetings, but the admonition to move from generic to specific and to focus on implementation cannot be neglected much longer.

Several northern hemisphere think tanks have addressed these complex issues. For example, the “natural step” program³⁸ proposes the following:

- elimination of waste;
- elimination of harmful emissions;
- use of renewable energy only;
- adoption of closed-loop processes;
- use of resource-efficient transportation;
- energizing of people (all stakeholders) around this vision; and
- redesign of commerce so that a service

is sold that allows the company to retain ownership of its products and maximize resource productivity.

The Wuppertal Institute in Germany and the World Resources Institute in the US have been leaders in calling for “full-cost pricing” to reflect the value of natural ecosystems, their consumption, and the services they provide. At the microeconomic level, environmental externalities—namely, the neglected social costs of environmental damage—must be internalized into business and consumer budgets. At the macro-level, governments should adjust national income accounts to reflect positive “green” benefits and delete costs associated with environmental remediation. It makes no sense for negative expenditures such as cleaning up after disasters that could have been prevented to be accounted for as increases in the economic wealth of the nation.

The term “natural capitalism” has been used to indicate a shift in thinking from destructive consumption of the planet’s most important capital, nature, to working within its complex system of ecosystem services already delivered outside of the market system and worth more than the total global economy.³⁹ To achieve sustainable production and consumption, the Aspen Institute, originators of this concept, proposes four principles: (i) increase resource productivity (by at least a factor of 10), (ii) eliminate waste by redesigning an economy based on closing the loops of material flows, (iii) shift from processing materials and making things to creating services and flows, and (iv) rehabilitate the planet by investing in natural capital. Others have referred to the concept of cradle-to-cradle industries or a “circular economy,” rather than the linear cradle-to-grave approaches. This concept has begun to find practical application in the PRC, where central and local governments recently were encouraged to adopt the circular economy concept as they prepared activities to be covered under the 11th Five-Year Development Plan (2006-2010). The government has committed to operationalizing the circular economy concept in several major sectors and regions.

The Netherlands is arguably the most advanced country in relation to sustainable production and consumption.⁴⁰ Since its first National Environmental Policy Plan (NEPP) in 1989, the Netherlands government has set overall targets and entered into covenants with sector stakeholders to meet these goals leaving the choice of means to those who are believed to know best. Setting targets for consumption and entering into covenants with consumers has not been as simple as doing so for production sectors like the chemical industry. Interestingly, the Netherlands Social and Economic Council (SEC) distinguishes between the role of a citizen concerned about problems facing society and the role of the consumer concentrating on self-interest although they are embodied in one person. The consumer is part of the production chain (purchase, use, and disposal), whereas society sets standards and licenses the production chain to operate under certain conditions. Sustainable consumption, therefore, requires a consonance between social and individual behaviors. Unfortunately, humans are quite capable of simultaneously holding social views that are markedly different from their private behaviors. To deal with such dilemmas, the Dutch SEC recommends a mixture of carrots, sticks, and sermons (i.e., making clear the alternative sustainable behavior, minimizing or compensating for personal sacrifices, and internalizing the desired behavior so that deviations are seen as antisocial aberrations and invoke public censure). Product information and the ready availability of sustainable alternatives are essential in bringing about such behavioral changes.

Sustainable production and consumption (or natural capitalism) is not just a theoretical concept. Numerous best practice cases have been documented, many of them derived from employee suggestions ranging from reductions in the energy content of products, to making buildings more energy efficient. The key question for corporations and consumers is whether to seek these solutions voluntarily because they add to both profitability and to a

sustainable society or to wait until they become mandatory. Given the history of this issue in the UN system since 1972, an international declaration on sustainable production and consumption seems almost inevitable. That would, in turn, lead to national commitments and legislation. Transitional policies being adopted in the European Union (EU) already serve as useful guides to future global actions.

In summary, whether future programs to make both production and consumption sustainable are voluntary or mandatory may be a moot point. Business leaders in Asia and the Pacific would be well advised to become involved now; they should take the initiative to design effective voluntary programs that they can live with rather than take a “wait-and-see” attitude thereby risking future imposition of mandatory programs that could be punitive.

Equator Principles

In June 2003, several of the world’s largest private financial institutions adopted the Equator Principles. Developed by the World Bank’s International Finance Corporation (IFC), this code of conduct seeks to ensure that large projects (of over \$50 million in capital) financed by signatory organizations are developed in a manner that is socially responsible and reflects sound environmental management practices. Currently, 30 of the world’s largest banking groups have signed on to the Equator Principles, accounting for about 75% of the investment in emerging markets (\$55.1 billion in project loans in 2003).

These financial institutions are required to review carefully all requests for project financing and to categorize the risk of a project in accordance with prescribed internal guidelines. For category A (significant adverse environmental impact) and selected category B (less adverse environmental impact), an environmental management plan is required covering mitigation, action plans, monitoring, management of risk, and schedules. If necessary, a decommissioning plan must also be prepared. These categories cover major

capital investments and do not cover smaller loans. While the number of loans and projects covered is relatively small, this exercise sends an important signal to all business leaders. Either the borrower or a third-party expert must have consulted, in a structured and culturally appropriate way, with project-affected groups including indigenous people and local NGOs. The EIA must be made available to the public in the appropriate local language and in a culturally sensitive manner for a reasonable minimum period of time. The IFC is providing customized training to bank staff. As necessary, the lenders will employ additional expertise to provide additional monitoring and reporting services.

The \$3.6 billion Baku-Tblisi-Ceyhan oil pipeline project, financing for which closed in February 2004, was the first major test of the Equator Principles as it was the first category A project. Baku-Tblisi-Ceyhan will transport oil from Azerbaijan through Georgia to the Turkish port of Ceyhan on the Mediterranean. The pipeline solves the problem of commercializing Caspian oil without shipping it through the fragile and overcrowded Bosphorus Straits. The project presents a number of environmental and social challenges, including pipeline routing near potentially critical habitats, the claims of various groups for special recognition and compensation, seismic activity, and political turmoil in Georgia. The project attracted and continues to attract considerable negative NGO concern.

As a result, 13 of the major environmental NGOs met with 16 of the Equator Principle banks in July 2004 and agreed to form a small working group to examine how NGOs can work productively with the banks and how to make reporting on the implementation of the principles more transparent. Business leaders have consistently indicated that they accept an open and transparent process, but in return, they want a final decision that will end protracted wrangling. They become discouraged when some environmental NGOs remain critical no matter how thorough the review process. At this meeting, the participating banks

also signaled that the Equator Principles are only one element, albeit an important one, of their overall environmental policies. In fact, in one of the consultation workshops held for AEO 2005, several of the banks indicated that the “large project trigger” is not really needed because they now use the same principles for any environmentally sensitive project, regardless of size.

For businesses that think there are plenty of other banks in the world, the avowed goal is to have a critical mass of leading banks announce the adoption of the principles so that they become the de facto banking industry standard. More banks can be expected to adopt the Equator Principles in coming years.

Global Reporting Initiative

The Coalition for Environmentally Responsible Economies (CERES) is collaborating with international accountancy bodies, financial institutions, environmental organizations, government and quasi-government agencies, and public interest groups in implementing the Global Reporting Initiative (GRI). This is an innovative effort to harmonize environmental and social accountability and the reporting practices of many organizations⁴¹ and to elevate them to the same level of acceptance now accorded financial reporting. As an autonomous organization, GRI encourages all companies to measure and report consistent, timely information that will assist analysts, investors, and other stakeholders in comparing corporate performance within a given sector. Company reports that meet the GRI guidelines are regarded as models for the Global Compact’s Learning Forum.

In 2002, GRI released its revised sustainability reporting guidelines. More than 700 corporations had adopted the guidelines; however, to date, only a handful of firms from Asia and the Pacific have signed on. As with financial reporting standards, which are still undergoing continuous improvement 50 years after they were first introduced, the sustainability reporting guidelines are viewed

as a work in progress, and a new version is under preparation. In fact, much of the recent development in accounting standards, partly driven by a wave of corporate scandals in Europe and the US, involves accounting for intangible assets such as corporate and brand reputation, alliances and partnerships, human capital, and environmental capital and liabilities. Hence, sustainability reporting is converging with broader accounting principles and many companies are now integrating sustainability reports into their normal annual financial reporting cycle.

Many businesses and trade associations have already endorsed the concept of sustainable development reporting. Issuing an environmental report is a requirement of membership in WBCSD, and members are encouraged to look at the indicators proposed by the GRI. All members are encouraged to go beyond environmental reporting and move toward sustainable development reporting covering the economic, environment, and social performance of the firm. Many firms use the GRI as a guide to ensure that they have covered all of the issues recommended for inclusion in reports. Accounting firms and independent NGOs have created new business lines in conducting third-party evaluation and validation services. Skeptical environmentalists were initially concerned that voluntary self-reporting would result in “greenwash”—talking about environmental stewardship but failing to “walk the talk.” Third-party validation usually addresses this concern.

The benefits of sustainability reporting are manifold but include (i) building, sustaining, and continually refining stakeholder engagement with the firm; (ii) linking typically discreet and insular functions of the corporation in a more strategic manner, thus opening up internal conversations that would not happen otherwise; (iii) early warning of potential trouble spots (and unanticipated opportunities) in the supply chain, customer base, regulatory framework, or affected communities; (iv) creating a more complete picture of long-term prospects and

new business opportunities; and (v) reducing volatility and uncertainty in share prices and raising capital, by avoiding unwelcome surprises.⁴² Although the guidelines are voluntary at this stage, reports following them allow for comparability and benchmarking thus providing managers with useful feedback on performance while legitimate differences between firms and sectors are recognized. Such benchmarking will also become an important input to the decision-making processes of the socially responsible investment (SRI) funds discussed in the next section.

In addition to the guidelines, the GRI is developing (i) sector supplements to capture the unique sustainability issues of certain sectors such as mining or banking; (ii) guidance documents on topics such as “diversity” or “productivity”; and (iii) technical protocols providing definitions, procedures, formulas, and references for each measurement indicator. Indicators are divided into “core” and “additional.” GRI has also prepared a trimmed-down version of the guidelines for SMEs as well as modifications for government and international agencies. GRI complements other tools of sustainability such as charters or codes of conduct, organizational policies, industry standards, voluntary initiatives and agreements, and environmental management systems (EMS) which are addressed in subsequent chapters.

The environmental performance indicators cover (i) materials; (ii) energy; (iii) water; (iv) biodiversity; (v) emissions, effluent, and waste; (vi) the environmental performance of suppliers; (vii) the environmental impacts of products and services including the ability to be recycled or reused; (viii) compliance with all relevant international declarations, treaties, and agreements and all relevant national, subnational, regional, and local environmental regulations; (ix) transport; and (x) environmental expenditures. Thus, in theory, it should be possible to link a sufficient sample of compliant sustainability reports to national reports on environmental performance. In the new information age, environmental

reporting is one way for firms to communicate with shareholders, employees, suppliers, the financial community, and other stakeholders. The reports provide an opportunity for firms to set forth their visions for the future, corporate commitments, goals, and performance in attaining those goals. There are emerging financial rating institutions that compare companies and rate them for investors. Verifiable reporting is one key checkpoint in all of these rating schemes as firms strive to be the best in class. Thus, reporting is becoming a crucial factor for institutional image and recognition. Progressive and competitive firms increasingly recognize that they are being monitored everyday. There is no place to hide. It takes time, money, and effort to build a positive public image, and this becomes an important and valuable asset of the corporation.

Socially Responsible Investment and Stakeholder Advocacy

The Aspen Institute reports that, "...a small but growing segment of the financial community is beginning to recognize and reward the publicly traded businesses that are identifying business-environmental linkages. From SRI funds that traditionally have often screened out entire industries to the emerging environmental value funds and research services that look for top environmental performers in each industry, more and more investment money is moving in the direction of environmentally well-managed companies."⁴³

In 1999, Zurich-based Sustainable Asset Management (SAM) joined forces with Dow Jones & Company to establish the Dow Jones Sustainability World Indexes (DJSI), the first major benchmark tracking the financial performance of sustainable leaders on a global basis. According to SAM's chief executive officer, "...it is clear that sustainability is moving into mainstream asset management." More and more now believe that integrating economic, environmental, and social success factors into business strategy can result in competitive advantage (see Box 2). Although sustainability

funds represent less than 1% of the entire market, there is an emerging body of evidence that those companies earning entry onto the DJSI outperform broader stock averages. Currently, several mainstream institutions use DJSI and SAM analysis to manage funds and derivatives.⁴⁴

An IFC-sponsored project that reviewed SRI in emerging markets found that global SRI comprising more than 760 retail funds and many individual investors had more than \$2.7 trillion in assets under management.⁴⁵ However, less than \$1 billion of that was in Asia. US assets controlled by shareholder advocates, another form of SRI in which share ownership is used to advocate socially or environmentally responsible behavior, was almost \$900 billion. A recent study found SRI funds at least equal to non-SRI funds in emerging markets, including Asia.⁴⁶ SRI funds continue to outperform their benchmark comparators, at least in part because screened firms tend globally to be long-established, large-capital companies that intend to be around for the long haul.⁴⁷ This superior performance has, in turn, convinced some of the world's largest institutional investors, such as the California Public Employees Retirement System to employ social and environmental criteria in their investment guidelines. Thus far, however, companies in Asia and the Pacific are largely missing out on a potentially huge source of investment.

Leading-edge companies are integrating environmental considerations into their core businesses and are gaining a competitive advantage from doing so. With luck, companies going beyond compliance may enable investors and analysts to identify outperforming firms that can generate high rates of return on investment. Some of the trends that will drive these changes include (i) the adoption of quality management systems, (ii) global expansion limited by a company's environmental reputation, (iii) the need to manage environmental performance along the entire supply chain, and (iv) product differentiation based on environmental products and services.

To mobilize more SRI in emerging markets, the IFC has offered three

Box 2: Socially Responsible Investments and Corporate Behavior

In a recent global survey of investment managers regarding socially responsible investment (SRI), 89% said it will become commonplace within 10 years for companies to have policies and strategies qualifying them as socially responsible, 73% believed that incorporation of social and environmental corporate performance indicators will become mainstream within 10 years. Among Asian and Australian managers, 85% said all SRI practices will become mainstream within 10 years."^{*}

Another report showed a close relationship between corporate reporting and the existence of SRI funds. Entry of SRI funds into an equity market puts pressure on companies to provide detailed data on their environmental and social responsibilities and this encourages them to improve corporate governance and their own standards of corporate reporting.^{**} In Japan, for example, "levels and quality of corporate reporting jumped dramatically in line with the establishment of SRI funds. While global SRI funds are hesitant to enter some countries with low corporate governance scores, such as the Philippines and Indonesia, the report concludes that by entering these markets and actively engaging with leading companies, SRI funds can play a significant role in encouraging the adoption of improved corporate governance, corporate social responsibility (CSR), and SRI by the wider market.

In a third survey conducted among stock brokers and fund managers, 100% of the respondents indicated that the environmental, social, and corporate governance criteria impact both positively and negatively on long-term shareholder value.

^{*}Mercer Investment Consulting. 2005, 21 March. *SRI: What Do Investment Managers Think?* www.merceric.com
^{**}ASRIA. 2003. *SRI in Asian Emerging Markets.*

recommendations. First, incentives should be provided to establish support networks for professionals involved in emerging market SRI (such as conducting research on best practice SRI financial regulatory frameworks and enforcement and creating a multinational "SRI in emerging markets" working group). Second, better SRI corporate performance data should be collected and disseminated at low cost. Third, institutional investors should be motivated to invest in emerging SRI markets, possibly through the creation of a high-profile emerging market SRI fund.

Anti-Globalization Movement

The violent demonstrations against the World Trade Organization (WTO) meeting in Seattle in 1999 took many by surprise. The single coherent message seemed to be, "we're mad as hell and we're not going to take it anymore." Following is a partial list of the groups and key objections raised:

- trade unions: free trade would threaten jobs, especially in developed nations;
- farmers and fishermen: ending subsidies

would subject them to "unfair" competition from developing nations;

- environmental NGOs: WTO would ignore environmental and social issues during trade negotiations;
- human rights groups: globalization would spark a "race to the bottom" and workers would be exploited;
- culture activists: globalization would substitute western culture for traditional local culture and products;
- political activists: the collapse of communism left the world with no viable alternative to a free market liberalism that fails to provide adequate safety nets for those left out of the system;
- anti-MNC activists: state governance mechanisms are no longer capable of regulating runaway MNCs;
- anticorruption activists: bribery and corruption prevent the poor from the benefits of increased economic activity.

After Seattle, the anti-globalization forces targeted the annual joint meetings of the World Bank and the International Monetary Fund (IMF) as well as the meetings of the

Group of 7 leaders of the most-developed nations (Group of 8 if Russia is included). These protests also attracted small groups of anarchists willing to launch attacks against property and who consider the police as symbols of repressive authority. McDonald's and Coca-Cola were favorite targets as primary symbols of decadent western culture. Banks as well as shops selling luxury products were also targets. After a death during the G8 meeting in Genoa, Italy, future meetings were held at more isolated locations where public access could be controlled and security made more certain. Thus, the G8 meeting in France was held at the small resort of Evian while protesters massed in Geneva, 50 kilometers away. The meeting in Canada took place in the Rocky Mountains where access was difficult for uninvited guests. The US hosted its G8 meeting in Sea Isle, Georgia. Closing the bridge to the island kept the protesters far away from the actual meeting.

These protests reflect deeply held resentments about the perceived unfairness and unevenness of the benefits of increasing wealth worldwide. It is easy to denigrate these protests for their violence and their lack of a cohesive set of alternatives. It is also relatively easy to show that the very institutions that they rail against have enabled millions to escape poverty. Their argument is that the process of poverty alleviation is too slow, that the elites have benefited excessively, and that there is something morally bankrupt in a world system where 2 billion live in luxury while the other 4 billion are struggling just to survive.⁴⁸

It was clear from the "Battle in Seattle" that many were disturbed by the reluctance of the WTO to give environment and social concerns adequate consideration during trade negotiations. Trade union hostility was expected. They had fought hard to kill the North American Free Trade Agreement despite the concessions made on labor and environmental issues. The Democratic administration in the US supported it, and the Republican Congress approved the pact. This was a bitter defeat for the US unions

and the labor movement in general. Now the WTO was launching another round of negotiations to move further toward free trade, so there was a relatively clear "fair trade" argument with fair trade being viewed as code words for protectionism of domestic markets and jobs. Other trade dissidents from around the world joined the American trade unions in the protest.

During the 2004 presidential race in the US, the "outsourcing of jobs" from developed to developing nations entered the picture as another contentious debate related to free trade. From the rhetoric involved, one could imagine that unemployment rates in the US must be high and rising. Data show that the rate is actually lower than in Europe and declining. After the death in Genoa and the shock of the terrorist attack on the World Trade Center in New York in September 2001, all protest groups appear to have moderated the militancy of their views. The World Bank/IMF/Ministers of Finance meeting in Washington, DC in October 2004 attracted few protesters and no violence.

Clearly, the anti-globalization movement remains a concern for business, especially large corporations attempting to expand globally. Its immediate impact on the business environment is unclear except that it might slow down the rate of economic expansion and the benefits of poverty alleviation. The movement will certainly cause government negotiators of future free trade agreements to be more aware of concerned environmental NGO positions. Harmonization between multilateral environment agreements (MEA), some of which restrict environmentally damaging trade, and free trade agreements is already a contentious issue being thrashed out in numerous meetings and conferences.

Consumer Preferences and Boycotts

"Consumers are increasingly interested in the world that lies behind the product they buy. Apart from the price and quality, they want to know how, where, and by whom the product has been produced. This increasing awareness about environmental and social issues is a sign of hope. Governments and industry must build on that."⁴⁹ "Sustainable consumption is not about consuming less, it is about consuming differently, consuming efficiently, and having an improved quality of life."⁵⁰ Consuming differently means more quality and knowledge and less quantity and waste. There is emerging evidence that consumers are well ahead of their governments in demanding improved environmental performance from the goods they buy.

In a recent global survey of public opinion, 64% of respondents ranked pollution and environmental problems as very serious (almost the same as terrorism and the spread of human diseases), while 52% ranked loss of plants and animal species as very serious problems. In relation to corporate responsibilities, 69% said that companies should be operationally responsible for not harming the environment while 67% said that companies as responsible citizens should restore the environment for the future.⁵¹ Almost 80% said that corporations should be responsible for restoring the environment for future generations. It is this level of awareness that is translating into purchasing decisions.

The business community seeks to make profits by meeting human needs for goods and services. Despite the billions spent on global advertising, a consistent corporate position is that it is not in the business of telling people what and how much they should consume. As the chairman of Shell International said at a recent stakeholder dialogue, "...our business is offering choices...if the consumer does not want to buy it...we won't make it." However, business does have a responsibility to provide a range of information that enables consumers to make informed choices. This information package

needs to cover performance, value, safety, reliability, and environmental information.⁵²

In the marketplace, the consumer is the theoretical "king." However, many remain concerned that consumers are unfairly manipulated by advertising and information provided by opinion leaders. Veblen's *Theory of the Leisure Class*⁵³ firmly established the notion of conspicuous consumption, combining status and utilitarian functions. That means that we often consume to impress others, to win an attractive mate, or to demonstrate our position in the social pecking order. The standard microeconomist's stance is that we consume only for the personal utility or satisfaction that consumption brings. Thus, we are forever condemned to consume until the marginal utility of consumption is exceeded by the marginal cost of purchases. However, if that standard utility function is conditioned by where we see our rightful position in the pecking order or by how others might view the external manifestations of our consumption, then we may be perpetually disappointed instead of satisfied. If our consumption of brand name goods does not deliver either the satisfaction of the functional nature of the goods nor the social positioning that the advertising industry promised, we do not take the obvious lesson and stop consuming but often redouble our efforts. If there is always some group of wealthier people just ahead of us, consumption can become a deeply unsatisfying race to keep up. Despite manifold increases in gross national product since World War II, average happiness has not increased in developed countries.⁵⁴ Consumption does not equate to happiness.

Maslow's "hierarchy of individual needs" suggests that once the basic needs of people for food, clothing, and shelter are met, individuals seek safety and security.⁵⁵ Then they move on to concepts such as social belonging, self-respect, aesthetic needs, and finally, self-actualization and transcendence. At the bottom of Maslow's pyramid, people will do whatever is necessary to survive, which explains why poverty may lead the poor to

destroy the very environment on which they depend. The question is whether aesthetic needs and self-actualization at the top of the pyramid will lead to a focus on customized, quality goods and services or to an endless spiral of conspicuous consumption without regard to the impact of that consumption on the natural carrying capacity of Earth and its ecosystems and natural biodiversity.

In 2004, Redefining Progress released its latest version of Ecological Footprints of Nations.⁵⁶ An ecological footprint is, "...a tool for measuring and analyzing human natural resource consumption and waste output within the context of nature's renewable and regenerative capacity." The basic premise is that if we remove more from nature than can be sustained indefinitely, then we are on an unsustainable track as a species. The 2004 report found that the per capita ecological footprint continued its 20-year adverse trend and for the first time, the US became the nation with the largest per capita ecological footprint, at 9.5 hectares per person (5 times the sustainable average). Accordingly, any attempt to reduce consumption to an ill-defined, sustainable level should start with consumers in the US and Europe.

Do consumers worry about the ecological footprint of their consumption? Opinion surveys indicate that they do, while the response at the political level suggests that political action lags behind public opinion. For example, strangely missing from the MDGs is any mention of consumption patterns despite the evidence that overconsumption is causing a global epidemic of obesity in developed countries and threatening the global environment. Sadly, many developing countries appear to be striving to emulate similar consumption and lifestyle behaviors as their measure of "development." It is notable that JPOI merely proposed a decade-long study of production and consumption. Contrast this meek official response to some of the dire warnings about the continuing global preoccupation with overconsumption.

Consumption in many rich nations continues to grow, much of it reasonably classed as "overconsumption" in comparison to the material goods available to the average human being. Population growth continues in the US, now the third most populous nation in the world (294 million) and heading toward 420 million in 2050. The US has a population growth rate (thanks largely to immigration) of over 1%. More importantly, it has an extremely high level of consumption per person—10 to 30 times that of people in developing nations. "The spread of American consumerism is a global threat, and the prospect of ever greater disparities in living standards not only between nations but within nations, bodes ill for the environment."⁵⁷

If it is true that we consume mainly to gain utility from the functional properties of goods, why do we accept planned obsolescence and purchase products that break down the day after the warranty expires? Like the environmental cost of pollution produced during manufacturing, the costs of disposal are not reflected in product prices and must be shared by those who have not enjoyed the often very temporary pleasures of consumption. The rapid growth in leasing arrangements indicates that consumers have accepted that a car or computer will soon become obsolete and there is little point in owning something that will soon need to be replaced. Failure to internalize post-consumer costs into product prices explains why there is not a greater business emphasis on providing services rather than the things that provide those services. Did previous generations who built things to last have a better understanding of consumption than modern throwaway societies? Perhaps there was a closer relationship between consumers and disposal costs. In any case, these are illustrations of some of the questions that will need to be addressed if sustainable consumption is to be defined and addressed.

Gradually, modern consumers and their advocacy groups are learning the power that they hold over producers and exercising their desire to encourage production of

environmentally sound goods and services. The power of "rejectionist" consumers is exemplified by the difficulty producers of genetically modified organisms (GMO) have faced in opening European markets. How can we account for such consumer advocates and activists clearly operating in a noneconomic manner? Are they simply neo-Luddites, opposed to technological advancement, or is there a deeper set of risk premiums and values at stake? Values that can resist the blandishments of social marketing techniques and the seductive power of advertising could be a powerful model sought by those who are promoting a simpler, less consumption-oriented lifestyle. Proponents of voluntary simplicity observe that, "only with greater fairness in the consumption of the world's resources can we live peacefully and thereby live sustainably as a human family."⁵⁸

It is not certain that continued global environmental degradation will motivate affluent consumers to moderate or adjust their purchasing patterns. Nevertheless, there are some initial signs of such change. The Max Havelaar Foundation⁵⁹ has launched successful campaigns in Europe to encourage consumers to pay premium prices for products from poor farmers in the developing world (bananas, coffee, tea, honey, cocoa, chocolate, sugar, orange juice, flowers and plants, mangos, pineapples, and rice). Coffee companies encourage consumption of "shade grown" coffee that is more environmentally friendly. Consumers appear willing to pay premiums for quality products, as has long been recognized by the luxury goods market. Consumers purchase prestige products for multiple motivations but primarily for sociability and self-expression.⁶⁰ Similar consumption patterns may be found to be expanding across Europe and North America in response to various green labeling and certification efforts.

Commercial advertising, often criticized for its use in stimulating excessive consumption, also could be a potent force to help shift purchasing behavior toward products in line with habits that enhance

rather than hinder sustainability. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) has already collaborated with a major advertising company to communicate the essence of sustainable development and influence the advertising industry.⁶¹ Some companies have used "social marketing" to raise awareness of health issues such as dental care in Zimbabwe and women's health issues in the PRC. There is no reason why advertising cannot be shifted away from further intensifying consumption problems to promoting solutions—provided someone is willing to pay for it. Business could apply the influence of the media to promote different visions of "the good life." By creating consumer awareness of sustainability through advertising, business could encourage people to support sustainability through their purchasing power. However, there is no point in advertising eco-efficient living if business does not simultaneously deliver eco-efficient products and services as part of a deliberate strategy to increase market share.

Given the consumption patterns of the developed world, it seems hypocritical to suggest that consumers in developing countries should not aspire to "modern" mass consumption lifestyles. If affluent nations significantly altered their current consumption patterns, then theoretically there would be room for greater consumption in developing countries without increasing total environmental impact on global ecosystems. Most of the world's population, both in developing and developed nations, still does not see environmental problems—such as the threat of global warming, loss of biodiversity, and depletion of the world's fisheries—as threats that apply to them personally, certainly not in the short term. Those in the developing world look at the quality of life in affluent nations portrayed in the media and want the same and as soon as possible! They have neither accepted nor internalized warnings from environmentalists that we already are exceeding the carrying capacity of the globe. Even the concept of the carrying capacity of ecosystems and of the "spaceship nature of

Earth” is difficult for most people to absorb. It is still easier to be naively optimistic than to heed warnings about poorly understood global systems. Many consumers appear to be in denial, not wanting to hear the bad news about the consequences of their actions if it means preventing them from sharing in the good life.

Once stirred to action, however, consumers can be very effective in voting with their purchasing power, including the boycotting of companies in breach of social norms. In January 2001, for example, seven officials from a company that manufactures monosodium glutamate, a ubiquitous taste enhancer in Asia and the Pacific, were detained in Indonesia. The East Java factory producing the additive and associated warehouses were sealed, products withdrawn from supermarket shelves, and the share price fell by over 14%. The Indonesia Council of Ulemas (Muslim religious leaders) had delivered a fatwa (ruling) that that particular brand was not halal (and therefore forbidden to be eaten by Muslims). The reason stemmed from a revelation that the company used an enzyme from bacteria grown on pork extracts to speed up the chemical reactions involved in production. The company quickly moved to assure Indonesian consumers that it no longer used this method to produce its enzymes, but only after considerable financial damage.

The Ethical Consumer⁶² maintains a registry of current boycotts in the United Kingdom (UK)—a list which early in 2005 included firms using kangaroo skin to make football boots, airlines transporting primates for research, pharmaceutical firms using horses in producing drugs, companies producing genetically modified crops, a beer company using orcas as performing animals, a soft drink company allegedly repressing trade unions in Columbia, a car manufacturer for failure to pay reparations for use of slave labor during World War II, an oil company for lack of action on climate change, a fast-food chain for cruelty to chickens, plus many others.

Such boycotts can be economically punishing for the firms affected. For example, one of the most effective boycotts

occurred in Germany during a dispute over decommissioning of the Brent Spar “oil rig” (a 137-meter-high storage buoy). Following a boycott of the company’s petrol stations, sales declined by more than \$100 million. The oil company capitulated within a week and agreed to abandon its original plan to tow the rig out to sea and sink it in deep ocean waters. In addition to the lost income, the company faced higher costs of dismantling the rig on land.⁶³ Both the UK government and the company maintained throughout this drama that ocean disposal remained the best environmental option.

Stockholder advocacy also is on the rise and can significantly influence internal policy, particularly during annual meetings. Perhaps one of the most significant groups espousing the power of stockholders is the Interfaith Center for Corporate Responsibility,⁶⁴ a coalition of 275 Protestant, Catholic, and Jewish congregations with over \$100 billion in assets with a mission to promote corporate responsibility. Its member groups posted stockholder resolutions in 2003–2004 on GHG emissions, GMOs, sustainability reporting, drilling in the arctic wildlife refuge, the impact of the Bhopal accident, the release of dioxins into the environment, and renewable energy. Most of these boycotts and shareholder actions are directed at specific incidents or unethical behavior with only a limited number addressing broader global concerns.

Environmental and social activists face a dilemma in their efforts to modify consumer preferences. They have to educate consumers, but it is unclear if consumers respond to objective, science-based information or whether it will take reference to more dramatic warnings of impending disasters to capture the public’s imagination. Are consumers “turned off” by too many negative warnings? Do these warnings create more confusion or denial than genuine concern that generates positive action? Will it take a demonstrable global catastrophe to stir consumers into action? What will be the impact of “counterattacks” from skeptics exemplified by the controversial book, the *Skeptical Environmentalist*?⁶⁵ Perhaps more time

and effort needs to be spent creating consensus among leaders in business, government, and NGO groups that will have credible staying power. The solutions to many longer-term global environmental problems will require coherent long-term strategies rather than a series of ephemeral ad hoc reactions to the crisis of the day. Nevertheless, business leaders in Asia and the Pacific should be aware of the power of consumer preferences and should monitor the broad changes in preferences and expectations beginning to emerge both in their developed-country markets and at home.

Patent Protection and Intellectual Property Rights

The Patent Cooperation Treaty was first signed in 1970 and has been amended several times since. The latest version, in force since 2002, provides protection and legal remedies for registered inventions. By filing one international patent application, an inventor can seek simultaneous protection in over 100 countries, including a number of developing countries. The World Intellectual Property Organization is helping developing countries to improve patent protection laws and to ratify the Patent Cooperation Treaty as well as the Madrid system for international registration of marks and the Haque system for international registration of industrial designs. Similar protection is afforded copyrights through the Berne Convention for the Protection of Literary and Artistic Works. Plant varieties can be protected by patents or by a special system (such as breeder’s rights under the International Convention for Protection of New Varieties of Plants).

The Trade in Intellectual Property Rights (TRIPS) Agreement (Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization) was negotiated as part of the 1986–1994 Uruguay round on international trade negotiations. For developed countries, the TRIPS provisions came into force in January 1996. Developing country members of the WTO were given a transition period until January 2000 and least

developed countries were given until January 2006 (pharmaceutical patents have been extended to 2016).⁶⁶ The TRIPS Agreement makes intellectual property rights (essentially copyright and patents) an integral part of the multilateral trading system. As an indicator of the economic significance of such innovation and the importance of these protections, copyright industries in the US in 2002 accounted for 6% of gross domestic product or \$627 billion, employed 5.5 million workers, and exported \$89 billion of goods (books, movies, software, etc.).⁶⁷

The International Chamber of Commerce estimates that 7% of global trade is counterfeit and that counterfeit sales are worth \$350 billion per year.⁶⁸ The Business Software Alliance estimates that software piracy alone is worth \$29 billion per year.⁶⁹ Counterfeit automobile parts cost the industry approximately \$12 billion per year in lost sales and reduce legitimate jobs by 200,000 in the US. Fake diet pills, infant milk formula, wines and spirits, and automobile parts (such as brake pads made of sawdust) also have caused injury and loss of life.⁷⁰ The International Federation for the Phonographic Industry estimated that 1 billion counterfeit music compact disks were sold in 2003 (one out of every three sold) valued at \$4.5 billion, or 15% of the global recorded music market. Of the top 10 offending countries, half are in Asia and the Pacific.⁷¹

However, such illegal activity is becoming increasingly difficult in the region partly due to increased government action but also due to developed-country firms taking direct action. Lightning raids on manufacturers or outlets selling fake products is now a major activity of security firms in the region. There is even some evidence that terrorist and organizational crime groups are engaged in the counterfeiting trade, thus doubling the determination of authorities to crackdown on these practices.

New technologies are being employed to deter fakes from being sold. In apparel, deoxyribose nucleic acid (DNA) signatures are being woven into the cloth as fancy watermarks and holograms are apparently too easy to copy.

The DNA can be sprayed onto a product as a film, embedded in thread or powder coatings, or mixed into the product compounds. A fluorescent reaction with a special reader authenticates the presence of the DNA. At the Sydney Summer Olympics in 2000, 34 million labels of merchandise were tagged with unique strands of DNA. Revenues lost at the Sydney games were estimated at less than 1%, netting the organizers an additional \$700,000 in royalties. The Atlanta games committee in 1996, on the other hand, estimated that half of the merchandise sold around the world was fake.⁷²

We sometimes forget that much of East Asia's success in industry was due to the wholesale copying of Western goods. It was not so long ago that "made in Japan" was a derisory term for cheap and poorly made knock-offs of Western products. The PRC, Taipei, China, Republic of Korea, and India have often followed the same development path. Will overzealous protection of patents and copyright bar this path to development for some of the upcoming least developed countries? The need to balance legitimate property rights with an ability to adapt successful designs or products from developed countries will occupy trade negotiators for many years.

Multilateral Environmental and Trade Agreements

There are over 2,000 multilateral and regional environmental agreements, some of which specifically impose binding legal agreements on nations, and in turn, corporations operating in those countries. In the past, few of these agreements had any form of sanctions, so developing countries could sign them without fear of retribution. However, more recent MEAs have begun to move toward legal sanctions for noncompliance, and several have trade-related provisions that directly impinge on corporate activity and the ability to export into developed-country markets (nontariff trade barriers).

Of this multitude of agreements, 238 are regarded as either international treaties or agreements in the environmental field⁷³ 38 of which contain trade-related measures. Examples that use trade-related measures to achieve their objectives include the Montreal Protocol, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Convention on International Trade in Endangered Species, the Persistent Organic Pollutants and Prior Informed Consent Conventions, and the Biosafety Protocol of the Convention on Biological Diversity. Other MEAs, such as the UN Framework Convention on Climate Control and the Kyoto Protocol, may have significant trade implications in the future, especially through trade in GHG emissions.

Perhaps one of the more perplexing complexities in the alphabet soup of MEAs is the potential conflict between provisions of free trade agreements and environmental restrictions.⁷⁴ Developing countries are concerned that developed countries will impose environmental barriers (such as phytosanitary standards) to limit market access as tariffs fall. In workshops for AEO 2005, several developed-country company representatives indicated that they want to see a level playing field so there is no competitive advantage to operating in a country with lower environmental standards. On the other hand, competitive pressure from the globalized market may make it more difficult for environmental advocates and regulators to gain the necessary local support to upgrade environmental standards.

Key to this argument is the WTO trade rule banning imposition of performance and process standards on exporting nations. Importing nations are allowed to require that the exports meet or exceed the requirements for products manufactured in the home nation. NGOs fear a race to the bottom as developing countries offer their comparatively lax environmental standards as a competitive edge to attract foreign direct investment. However, empirical evidence does not support this conclusion, since multinationals normally

impose uniform performance and process standards regardless of location. This does not preclude trade-driven economic growth from speeding up the process of environmental degradation in the absence of domestic enforceable regulations or enforcement. More importantly, economic integration has diminished the regulatory independence of developing nations thus accelerating the need for greater international cooperation on MEAs. Global competition and better information may actually set off a race to the top as national companies attempt to match or exceed the performance of competing multinationals.⁷⁵ The implications for domestic businesses in Asia and the Pacific are clear. Being a supplier to OECD markets and MNCs will mean complying with more stringent international environmental requirements. Cost is always an issue, but environmental performance and quality control are essential to capturing and retaining market share.

In the early 1970s, the General Agreement on Trade and Tariffs (GATT) Council, the precursor to WTO, established the Group on Environmental Measures and International Trade to examine, upon request, matters related to the trade policy aspects of pollution and environmental protection. No request was made to convene this group until the early 1990s. The starting point was a dispute over the extraterritorial application of the US Marine Mammal Protection Act which sought to stop the incidental killing of marine mammals, such as dolphins, in fishing nets. An adjudication panel found that an import ban on tuna caught in purse seine nets violated core provisions of the GATT and that the less trade-restrictive measure of labeling canned tuna as "dolphin-safe" would allow consumers to state their preferences in the supermarket aisles.⁷⁶

Although there were concerns that Pandora's box may have been opened, the Group on Environmental Measures and International Trade was requested to convene and reported to the 49th session of the contracting parties in 1994. This report was the main input to the decision on trade and

environment that formed part of the Uruguay Round Agreement concluded in April 1994. With the formation of the WTO in 1995, environmental issues were firmly ensconced in the multilateral trading system. Trade and environment issues were subsequently, and belatedly, included in the WTO negotiations launched in Doha in November 2001. Developing countries remain skeptical regarding the true intent of this inclusion.⁷⁷

It is generally agreed that trade measures should be included in MEAs only when they are the only or the best way of achieving the stated objectives. Such measures are often used where markets are imperfect, policy failures need to be corrected, or free riders need to be discouraged.⁷⁸ Many of these circumstances apply to developing countries in Asia and the Pacific. Specific measures may include monitoring the extent of trade in particular items, labeling, notification and prior consent, targeted export or import bans, or market transforming measures (such as taxes and charges).

The current Doha round of trade negotiations calls for the relationship between existing WTO rules and trade-related provisions of MEAs to be clarified provided they don't add to or diminish the rights and obligations of WTO members. Accordingly, developing country corporations and their proxies in the negotiations should continue to monitor developments in this area. Of particular interest may be the need to clarify the primacy of dispute settlement mechanisms and the most appropriate form of implementing the precautionary principle.

Risk Management

The insurance industry is always concerned with minimizing risks and has been working with UNEP since 1995 on a voluntary insurance industry initiative⁷⁹ aimed at helping integrate environmental considerations into their business operations. The cornerstone of the initiative is the Statement of Environmental Commitment by the Insurance Industry,

in which participating companies pledge to make every realistic effort to achieve a balance between economic development and the welfare of society through environmentally sound management activities. Given that insurance losses can be over \$30 billion annually and that natural disasters often result in more than 100,000 casualties per year, it is clearly in the commercial interest of the insurance industry to avoid such losses wherever possible. Of particular interest are climate-related losses leading to intensive interest in global warming and the Kyoto Protocol. Currently, less than 20% of losses globally are covered by insurance and almost 90% of losses are from floods and windstorms.⁸⁰

In 2003, UNEP merged the Financial Institutions Initiative and the Insurance Industry Initiative into one program. The resulting Finance Initiative has over 200 members in 45 countries. In its 2002 report, the initiative found that economic losses due to natural disasters were doubling every decade and based on current trends will reach \$150 billion per year within the next decade. The Climate Change Working Group has been established under the initiative to present to the financial sector the risks and opportunities climate change presents and urge them to play a key role in delivering market solutions that mitigate its effects. Exceptionally high premiums make it difficult for residents of developing countries to obtain insurance against natural catastrophes. One of the re-insurance company members has established a GHG risk solutions team to construct state-of-the-art solutions for risk transfer of carbon-related liabilities and carbon mitigation.

Decision makers in all areas find themselves confronted by radical changes in the risk landscape. Traditional risks are becoming even more complex, while new risks that are difficult to comprehend continue to arise. Epoch-making events such as the 9/11 attacks, severe acute

respiratory syndrome, the December 2004 tsunami disaster, and the failure of power grids on several continents have led to a radical overhaul of risk assessment practices, particularly in companies. Today's risks have far wider implications for business and require a holistic approach linked directly to sustainable development.

To support governments, business, and other organizations in fostering public confidence in risk governance and in related decision making, the WBCSD helped set up the International Risk Governance Council. During its launch in Geneva in June 2004, the council explored risk issues from business management and national policy perspectives looking at challenges facing both industrial and developing countries. The WBCSD president stressed that, "...society lacks both the understanding and the institutional capacity to tackle the increasing systemic risks, which our modern complex world has led to." Companies in Asia and the Pacific have considerably greater exposure to such risks than their counterparts in the northern hemisphere.

Supply Chain Pressures

One of the most important drivers toward improved environmental performance may be peer pressure from other companies in the global supply chain (business-to-business or B2B). Company representatives at the workshops for AEO 2005 consistently referred to the importance of supply chain relationships in creating pressure on SMEs to improve their environmental performance. Large global corporations increasingly aware of risks to their reputations from errant suppliers are demanding that their smaller supply firms in Asia and the Pacific adopt one or more certification schemes and carry out regular audits.

For example, a well-known sports shoe company has over 750 contractors in more than 20 countries. Through their Sustainability Initiative, issues such as reduction of solid wastes and hazardous chemicals, sustainable

product design and manufacturing, and product LCA have been addressed. A key element of this work has been the collection, validation, and reporting of key environmental metrics. The work has included developing a database, issuing reporting forms to factories, collecting quarterly data from factories, validating data, and generating quarterly corporate environmental reports. Box 3 highlights some lessons learned in working with SMEs to improve their environmental performance.

While poor product quality is probably the main reason for jettisoning an SME, there may be some cases where failure to meet environmental standards was a primary cause. The recent action of a large international bank to stop all lending to forestry companies in Indonesia and Malaysia exemplifies this principled stand. Initially, rejected companies may find alternative buyers or creditors (e.g., small local banks), but there will come a point at which such opportunities will dry up.

There are two types of supply chains: producer and buyer. The automotive sector is an example of a producer chain and the clothing, footwear, and furniture sectors are examples of buyer-driven chains.⁸¹ These supply chains are an increasingly important feature of the Asian and Pacific economic miracle. Do these new business partnerships foster a "race to the bottom" as pessimists fear or a "race to the top" as optimists hope? It is clear that MNCs with name and brand reputations to protect are under strong environmental pressure from customers, regulators, and investors to transfer OECD environmental and social standards to their suppliers in developing countries.⁸² The MNC partner may be willing to transfer environmental technology and training to ensure that neither their suppliers nor they themselves are subject to environmental criticism. Thus, supply-chain partnerships have the potential for upgrading developing country enterprises. However, the market expects firms in Asia and the Pacific to make "first world products at third world

prices," as one of the AEO workshop participants stated, and this places intense pressure on those firms.

Some observers suggest that there is a strong positive link between strict national environmental regulation and competitiveness.⁸³ The crux of this argument is that unilateral environmental regulation encourages domestic industries to innovate, generate first-mover advantages, and become leaders in the global economy. Environmental requirements by MNCs on developing country suppliers could have the same effect as national environmental regulations and trigger innovations. Thus, when MNCs require environmental upgrading from their suppliers, this would improve the relative competitiveness of those suppliers that successfully compete for the business. Many local firms continue to resist strict environmental regulation since they appear to impose costs with little or no immediate benefit to the firm. Correspondingly, some firms may resist or resent environmental requirements imposed by MNCs wielding their market power and offer only token compliance.

Copycat Environmental Legal Liabilities

Following the Love Canal incident in the US, Congress enacted the Superfund Law. Under the doctrine of joint and several liability, if the government found even one container of hazardous waste in an abandoned waste site bearing a company's name, it could hold that company liable for all associated clean-up costs and force the company to find and sue the other illegal disposers for recovery of their shares of the costs. This relieves the government from the complex process of discovery and allocation of liability among all the dumpers. Some may never be found. This law has generated a series of legal suits and actions against major corporations. Although the effectiveness of this law is highly disputed, there can be no doubt that it has imposed

Box 3: Working with Small and Medium-Sized Enterprises: Some Lessons Learned

Programs like the Samut Prakam Cleaner Production for Industrial Efficiency (CPIE) Project in Thailand (see Box 4) have identified a number of lessons learned in working with SMEs to improve their environmental performance. Some of these include:

Focusing on management capacity - While it is certainly important to provide information on available environmental technologies to industry, a significant and often overlooked barrier to sustained implementation of eco-efficiency measures is the lack of management capacity to plan, implement, evaluate, and follow up on these measures.

Taking a gradual approach - The CPIE project found that most factory managers are extremely skeptical about value of environmental measures and therefore unlikely to make big investments without fully understanding the benefits that CP can provide. Thus, it is wise to pursue a gradual approach, starting with low-cost or no-cost measures, followed by investments in cleaner technology, implementation of a certified management system, or even life cycle assessments much later.

Promoting self-inspection and self-auditing - Giving SMEs the management tools to develop and implement their own projects results in longer-term implementation of eco-efficiency measures and also reduces the cost burden for doing inspections and audits. Experience from the US has shown that a crucial part of this strategy is a preceding letter sent by the regulator, which implies that nonparticipants will be a high priority for inspection and, in the event of breach, enforcement action.

Using surrogate regulators - Sometimes government's capacity to regulate SMEs is very limited but there is a credible third party who may be harnessed to play a surrogate regulatory role. For example, substantial compliance was achieved in the Australian State of Victoria after the major vehicle insurer was persuaded to only contract with vehicle repairers, which complied with the state's "clean and green" initiatives.

Designing Neighborhood Environmental Improvement Plans (NEIPs) - Victoria also had success in improving compliance by designing NEIPs to foster local community involvement in and control over environmental issues relevant to their neighborhood. NEIPs are deliberately broad in scope in that they can apply to a range of environmental issues, and they are designed to facilitate the engagement of both residents and businesses.

Enlisting the assistance of trade and industry associations - These associations can play a valuable role in promoting benchmarking exercises within their sectors, generating motivation and competition.

Harnessing supply chain pressure - Larger firms may be able to impose product and process preferences on smaller firms, using their market power to influence the behavior of upstream suppliers and downstream buyers. In particular, some kinds of environmental purchasing, particularly the use of environmental surveys and audits of suppliers can strongly motivate the suppliers to improve their environmental performance.

Sources: The Greening of Industry Network. 1998. *Summary Report of International Forum on Greening of Small and Medium-Sized Enterprises*. Manchester, UK. <http://www.greeningofindustry.org/summary.html>; Gunningham, Neil. *Compliance, Enforcement and Innovation*. Australian

significant costs on business for actions taken over many decades. Similar legislation is now in force in several other OECD nations.

Environmental activist groups may lobby governments in Asia and the Pacific to enact similar legislation as the public becomes increasingly aware of hazardous wastes disposed of during the past 40–50 years (often without regard to whether that disposal was in compliance with the laws in force at the time).

Companies that upgrade their current disposal practices will be limiting future liability. As part of their strategic planning processes, they might also closely monitor new environmental legislation emerging in OECD countries. Much of the environmental legislation now in force in Asia and the Pacific has been adopted from developed country examples.

Animal Rights Group

For companies involved in the use of animals in product testing or research and development, a further source of pressure may come from animal liberationists or animal welfare groups. Activists in the UK and the US have taken extreme steps to protect animals. In addition to nuisance picketing, some of these actions have included criminal attacks against private property and physical attacks against corporate executives. Companies involved in natural resource exploitation have also come under attack. For example, part of the campaign against whaling by Japan and other pro-whaling nations is because of the cruelty of using explosive-tipped harpoons. As increasing evidence emerges of animal intelligence and cognitive abilities, any corporation that does not pay attention to animal welfare may be targeted. In this context, different value sets regarding the rights of animals in developed and developing countries may come into play.

Animal rights activists are passionate in their views. Those opposed to inhumane transport of livestock have organized pickets and other protests that have forced shippers and buyers in Europe to modify transport rules and regulations. The issue of fox hunting became a major political controversy between the democratically elected House of Commons and the unelected House of Lords in the UK; the sport was ultimately banned in 2004. Many in the rural minority saw their historical rights eroded by an urban majority that had little understanding and even less sympathy with what urbanites believed to be an inhumane sport. Thus far, this has been a uniquely "British" issue, although cruelty to animals appears to resonate with affluent middle class populations around the globe.

Another controversial issue involves protests against the use of animal fur and products for high fashion. People for the Ethical Treatment of Animals has managed to recruit a number of high-visibility fashion models and well-known entertainers to participate in cleverly staged boycotts of fur coats and other fashion

apparel using animal products. This campaign has attracted more radical activists willing to risk civil suit and arrest for throwing paint on expensive fur coats in acts of civil disobedience. It remains unclear whether this is a temporary phenomenon or an indicator of a sustained and growing campaign against the use of animal products for fashion apparel.

FINAL WORDS

A rapid expansion of environmental awareness and a range of external pressures to encourage stronger environmental management are coming to Asia and the Pacific. Not all of these pressures will have equal impacts on the region's corporate sector nor will they all strike at the same time. However, when the cumulative effects of these changes on the business climate are considered, a picture begins to emerge of how globalization and social change will fundamentally change the "rules of the game" for businesses in this region. These pressures all point to the same conclusion—the old ways of doing business are over. Companies in Asia and the Pacific must learn to assess and control corporate risk, move beyond mere compliance with government environmental and other regulations, and improve their internal governance. With the progression of the modern information age, it will soon be nearly impossible for businesses to hide behind national protectionism or to "fly under the radar," hoping that society and customers will ignore a company's operational practices. If companies do not accept and respond to the trends driving corporate accountability and responsibility for sound environmental performance, they will find themselves losing market share, access to capital, and the goodwill needed to operate in any society.